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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,502	01/17/2006	Aloys Wobben	970054.488USPC	6380
500 7590 02/25/2008 SEED INTELLECTUAL PROPERTY LAW GROUP PLLC 701 FIFTH AVE SUITE 5400 SEATTLE, WA 98104			EXAMINER HANAN, DEVIN J	
			ART UNIT 3745	PAPER NUMBER
			MAIL DATE 02/25/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,502

Applicant(s)

WOBBEN, ALOYS

Examiner

DEVIN HANAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-22 and 24-30 is/are rejected.
- 7) ☒ Claim(s) 13, 23 and 31 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/17/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/17/2005 & 1/29/2008</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

Claim 31 is objected to because of the following informalities: The word --that-- appears to be missing in line 4 of claim 31. The word appears to be missing after the phrase "the blade such". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 14 and 15, the phrase "**namely**" is similar to the phrase --for example-- in that renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat.

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App. & Inter. 1989), as to where broad language is followed by "**preferably**" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 14 and 15 recite the broad recitation "a signal", and the claim also recites "a pulse signal" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 12, 14-22, 24, 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rebsdorf (U.S. Patent 6,619,918) in view of Yanagida et al. (U.S. Patent 5,379,644).

Rebsdorf discloses a rotor blade for a wind power plant comprising a rotor blade connection for connection to a hub of a wind power plant and a blade tip disposed at the opposite end of the rotor blade characterized in that at least one electrical conductor monitored by a detector.

Rebsdorf does not disclose the electrical conductor is laid over the length of the blade and there is a detector which detects the electrical resistance of the conductor.

However, Yanagida et al. teach of an electrical conductor over the length of an airfoil (fig 13) and a detector (element 4, col. 11 lines 35-43) for determining the electrical resistance for the purpose of acting as a strain or stress gauge that is simple, inexpensive and size can be chosen freely (abstract).

Since Rebsdorf and Yanagida et al. are both from the strain gauge on airfoil art, the purpose disclosed by Yanagida et al. would have been recognized in the pertinent art of Rebsdorf. It would have been obvious at the time the invention was made to one having ordinary skill in the art to add the conductor of Yanagida et al. to the rotor of Rebsdorf for the purpose of acting as a strain or stress gauge that is simple, inexpensive and size can be chosen freely (abstract).

Regarding claim 2, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above and discloses discontinued usage if the resistance is too high (stress is monitored for service purposes, col. 3 lines 52-57).

Regarding claim 3, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above and discloses the conductor is connected to the detectors (3 is connected to 4).

Regarding claim 4, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above and discloses the lengths of the conductors are variable (col. 12 lines 10-14).

Regarding claim 5, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above and discloses the length extends to the tip (col. 12 lines 10-14).

Regarding claim 14, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above and disclose the signal is measured and stored (stress, related to flexing, is measured at one point in time, this can be assumed to be a pulse, col. 11-12, lines 62-9).

Regarding claim 15, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 14 above.

Regarding claim 16, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 14 above and disclose the line is electrical (abstract).

Regarding claim 17, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 15 above and disclose the conductor is locked at the ends (fig 13, locking is necessary for accurate measurements).

Regarding claim 18, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 17 above.

Regarding claim 19, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 14 and 1 above.

Regarding claim 20, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above.

Regarding claim 21, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above and disclose the conductor (fig 13, 3) extends along the length of the blade towards a tip and then returns (fig 13, the airfoil has a length towards the tip and then it returns, also it is possible to set the length freely, col. 12, lines 10-14).

Regarding claim 22, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above and the blade connects to a hub (Rebsdorf fig 1).

Regarding claim 24, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 and 16 above.

Regarding claim 26, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above.

Regarding claim 29, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 and 5 above.

Claims 6 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rebsdorf (U.S. Patent 6,619,918) in view of Yanagida et al. (U.S. Patent 5,379,644).

Regarding claims 6 and 28, the modified apparatus of Rebsdorf discloses each and every structural element of the airfoil and conductor.

The modified apparatus of Rebsdorf teaches that the airfoil contains a conductor, but is silent as to the method of fixing the conductor to the airfoil. The claimed phrase "is galvanically connected at a predetermined location" is being treated as a **product by**

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process limitation; that is, that the airfoil with conductor is attached galvanically. As set forth in MPEP 2113, product by process claims are NOT limited to the manipulations of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 USC 103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113.

Thus, even though the modified apparatus of Rebsdorf is silent as to the process used to connect the conductor to the airfoil, it appears that the product in the modified apparatus of Rebsdorf would be the same or similar as that claimed; especially since both applicant's product and the prior art product is an airfoil needing a conductor to be fixed to provide accurate measurements (col. 2 lines 47-56).

Claims 7-10 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rebsdorf in view of Yanagida et al. and further in view of Weitkamp (U.S. Patent 6,940,186).

The modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 1 above, but does not disclose the conductor is fixed to the blade support structure.

However, Weitkamp teaches of fixing strain gauges to the support structure for the purpose of sensing loads on the structural part of the rotor blade (abstract).

Since Rebsdorf, Yanagida et al, and Weitkamp are all from the strain gauges connected to airfoils art, the purpose disclosed by Weitkamp would have been

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recognized in the pertinent art of Rebsdorf. It would have been obvious at the time the invention was made to one having ordinary skill in the art to add the gauges on the support structure of the modified apparatus of Rebsdorf as taught by Weitkamp for the purpose of sensing the strain or stress on a structural part of the rotor blade (abstract).

Regarding claim 8, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 7 above.

Regarding claim 9, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 7 above and discloses the sensors can be replaced (col. 3, lines 25-30).

Regarding claim 10, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 7 above.

Regarding claim 30, the modified apparatus of Rebsdorf discloses all of the claimed limitations as discussed in claim 9 above.

Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rebsdorf in view of Yanagida et al.

The modified apparatus of Rebsdorf, teach of using a conductor except that there is no particular elemental composition claimed.

It is common practice in the art to vary elemental composition to vary attributes. Additionally, the varying of attributes could result in better electrical conductivity (aluminum is an excellent conductor of electricity) and better overall performance.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the elemental composition of the conductor of Rebsdorf to vary the attributes as an **engineering expedient**.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rebsdorf in view of Yanagida et al.

The modified apparatus of Rebsdorf, teach of using a conductor but does not mention it is on both sides.

It is common practice in the art to vary put a sensor in different location to get additional data. Additionally, the additional sensors could detect problems only found in one area. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add sensors to the other side of the airfoil of Rebsdorf in order to get additional data as an **engineering expedient**.

Allowable Subject Matter

Claims 13, 23 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

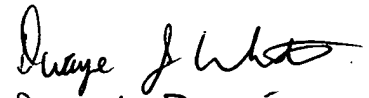
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Hanan whose telephone number is 571-272-6089. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on 571-272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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